WHAT IS CLAIMED IS:

1.   A method for effecting a transfer of information to a proxy server, the method comprising the steps of:

receiving a request for information regarding a resource;

generating a response to said request, said step of generating including the substeps of,

retrieving the requested information,

determining a set of additional information to be related to said resource, and

combining the retrieved information and the set of additional information;

and

transmitting said response to the proxy server.

2.   The method of claim 1 wherein said substep of determining a set of additional information includes the substeps of identifying at least one further resource related to said resource, and compiling information regarding any identified further resource.

3.   The method of claim 2 wherein the compiled information includes an identifier for said at least one further resource.

4.   The method of claim 3 wherein said compiled information includes attribute information regarding said at least one further resource.

5.   The method of claim 4 wherein said attribute information relates to an attribute selected from the group comprising a resource size, a resource content type, a frequency of change of resource, a frequency of access of the resource and a probability that the resource will be requested following a request for the requested resource.

6.   The method of claim I wherein said substep of determining a set of

additional information includes the substeps of,

analyzing the received request to identify the resource associated with request and to interpret a filter related to a proxy that sent the received request;

identifying, based on the output of the analyzing step, at least one further resource related to said resource, and

compiling information about any identified further resource.

7. The method of claim 6 wherein the compiled information regarding said at least one further resource includes an identifier for said at least one further resource.

8. The method of claim 7 wherein said compiled information regarding said at least one further resource includes attribute information regarding said at least one further resource.

9. The method of claim 8 wherein said attribute information is selected from the group comprising resource size, resource content type and last modified time of a resource.

10. The method of claim 6 wherein said step of identifying at least one further resource comprises the substeps of:

reviewing volume information correlated to the resource associated with the request; and

creating a set of further resources based on said review and the interpretation of the filter.

11. The method of claim 10 wherein the compiled information regarding said at least one further resource includes an identifier for said at least one further resource.

12. The method of claim 11 wherein said compiled information regarding said at least one further resource includes attribute information regarding said at least

one further resource.

13. The method of claim 12 wherein said attribute information is selected from the group comprising resource size, resource content type and last modified time of a resource.

14. A method for effecting a transfer of information to a proxy server, the method comprising the steps of:

receiving a request from a proxy server, wherein the request seeks information about a resource;

retrieving information regarding said resource in response to said request;

examining a volume of resource information with which said resource is associated;

compiling information from a subset of said volume of resource information; and

generating a response to the received request using the retrieved information and the compiled information.

15. The method of claim 14 comprising the further steps of,

receiving, with said request from said proxy server, a proxy filter, and

referring to said proxy filter to generate the compiled information.

16. The method of claim 14 wherein the retrieved information includes a copy of the resource.

17. The method of claim 14 wherein the retrieved information includes an indication of when the requested resource was last modified.

18. The method of claim 14 wherein the compiled information includes an identifier for said at least one further resource.

19. The method of claim 18 wherein said compiled information includes attribute information regarding said at least one further resource.

20. A method for facilitating proxy server cache updates, the method comprising the steps of

    receiving a request for information regarding a first resource;

    receiving a proxy filter associated with a proxy server associated with the received request;

    retrieving information responsive to said request;

    analyzing a volume of resources related to said first resource using said received proxy filter so as to identify second resource of potential interest to said proxy server;

    identifying attribute information regarding said second resource;

    generating a response to said request based on the retrieved information and the identified attribute information; and

    transmitting the response to the proxy server associated with the received request.

21. The method of claim 20 wherein said proxy filter includes a selection parameter for choosing one or more resources from a volume of resources related to said first resource.

22. The method of claim 21 wherein said selection parameter is selected from a group of resource attributes that includes, resource size, resource content type, a resource change rate and a resource request frequency.

23. The method of claim 20 wherein said request for information includes an identifier for said first resource and the proxy server's information regarding a last modification time of said first resource.

24. The method of claim 23 wherein said step of retrieving information includes

retrieving a last modification time for said first resource from a server associated with said first resource.

25.   The method of claim 24 wherein said step of retrieving information includes the further substeps of:

comparing the retrieved last modification time and said proxy server's information regarding a last modification time; and

retrieving another copy of said first resource when said step of comparing indicates that the first resource at said server associated with said first resource differs from the first resource at said proxy server.

26.   The method of claim 25 wherein said step of generating a response includes the step of combining said another copy of said first resource with the identified attribute information.

27.   The method of claim 26 wherein said proxy filter includes a selection parameter for choosing one or more resources from a volume of resources related to said first resource.

28.   The method of claim 27 wherein said selection parameter is selected from a group of resources attributes that includes, resource size, resource content type, a resource change rate and a resource request frequency.

29.   A method for creating a volume of resources from a plurality of resources available to a server, the method comprising the steps of:

detecting when a first resource is requested of the server;

identifying a second resource that is requested from said server within a time period following the request for the first resource;

determining a probability that said resource will also be requested if said first resource is requested; and

if the determined probability satisfies a minimum threshold then associating said first resource and said second resource in a volume.

30.   The method of claim 28 wherein the volume includes information regarding associated resources.

31.   The method of claim 30 wherein said information includes an identifier for each resource.

32.   The method of claim 30 wherein said information includes an identifier for each resource and a size of each resource.

33.   The method of claim 30 wherein said information includes an identifier for each resource and information about when each resource was last modified.

34.   A method for creating a volume of resources from a plurality of resources available to a server, the method comprising the steps of:

        analyzing the directory prefix of each of a plurality of resources associated with said server;

        dividing the resources into a plurality of subsets based on matching directory prefixes of the resources to a predetermined prefix level;

        associating resources in one of said plurality of subsets in a volume, wherein said volume includes an identifier for each resource.

35.   The method of claim 34 wherein said volume further includes information about the size of each resource.

36.   The method of claim 34 wherein said volume further includes information about when each resource was last modified.

37.   A method for providing a proxy server with supplemental information in response to a request related to a resource, the method comprising the steps of

        creating a volume center, wherein a plurality of volumes are stored, each volume including information about related resources;

detecting, at said volume center, a resource request to a server that stores a resource referred to in one of the volumes at said volume center; and

forwarding volume information related to said resource request to the requesting proxy server.

38. The method of claim 37 wherein volume information includes identifiers for a plurality of related resources and information regarding when each related resource was last modified.

39. The method of claim 38 comprising the further steps of:

after detecting the resource request, forwarding a request to get the resource to the resource's server if the information in the volume information about when the requested resource was last modified does not satisfy a predetermined criterion;

piggybacking the volume information to a resource returned in response to the request to get the resource; and

forwarding the resource and piggybacked volume information to the proxy server that issued the request related to the resource.

40. The method of claim 37 comprising the further steps of,

detecting a proxy filter sent by the proxy server along with the resource request; and

selecting a subset of information from a volume related to the resource associated with the resource request, wherein said step of forwarding forwards the selected subset.

41. The method of claim 37 wherein volume information includes identifiers for a plurality of related resources and information regarding when each related resource was last modified.

42. The method of claim 41 comprising the further steps of:

after detecting the resource request, forwarding a request to get the resource to the resource's server if the information about when the requested resource was

last modified does not satisfy a predetermined criterion;

piggybacking the volume information to a resource returned in response to the request to get the resource; and

forwarding the resource and piggybacked volume information to the proxy server that issued the request related to the resource.

43. A method for improving cache operations of a proxy server, comprising the steps of:

receiving a response to a request related to a resource, wherein said response includes information about resources related to the resource associated with the request;

analyzing said information to determine if any resources stored in said cache have been modified; and

if said step of analyzing indicates a resource has been modified updating the modified resource.

44. The method of claim 43 wherein said step of updating includes requesting the modified version of the resource.

45. The method of claim 43 wherein said step of updating includes initiating a request for differences between the version of the resource stored in the cache and the modified version of the resource.

46. A method for improving cache operations of a proxy server, comprising the steps of:

receiving a response to a request related to a resource, wherein said response includes information about resources related to the resource associated with the request;

analyzing said information to determine whether any resource referred to in said information is not stored at said cache; and

in response to the step of analyzing fetching a resource not present in said cache.